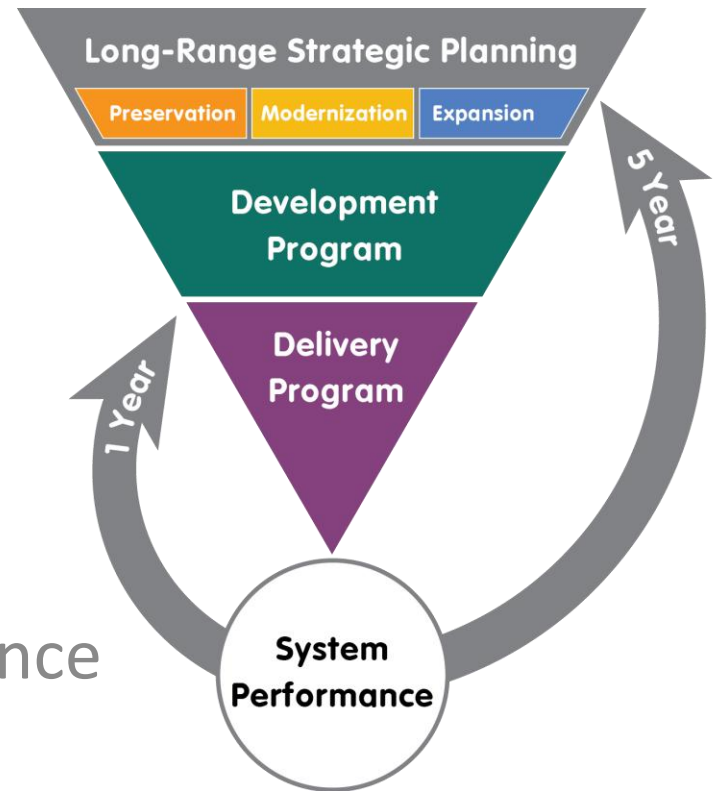


ADOT P2P Link



Linking Planning and Programming

New Direction for Investment Decisions



63rd Roads & Streets Conference

April 17, 2014

Today's Discussion



New Way of Doing Business

Healthy Transportation System

What's Different

Investment Categories

Implementation

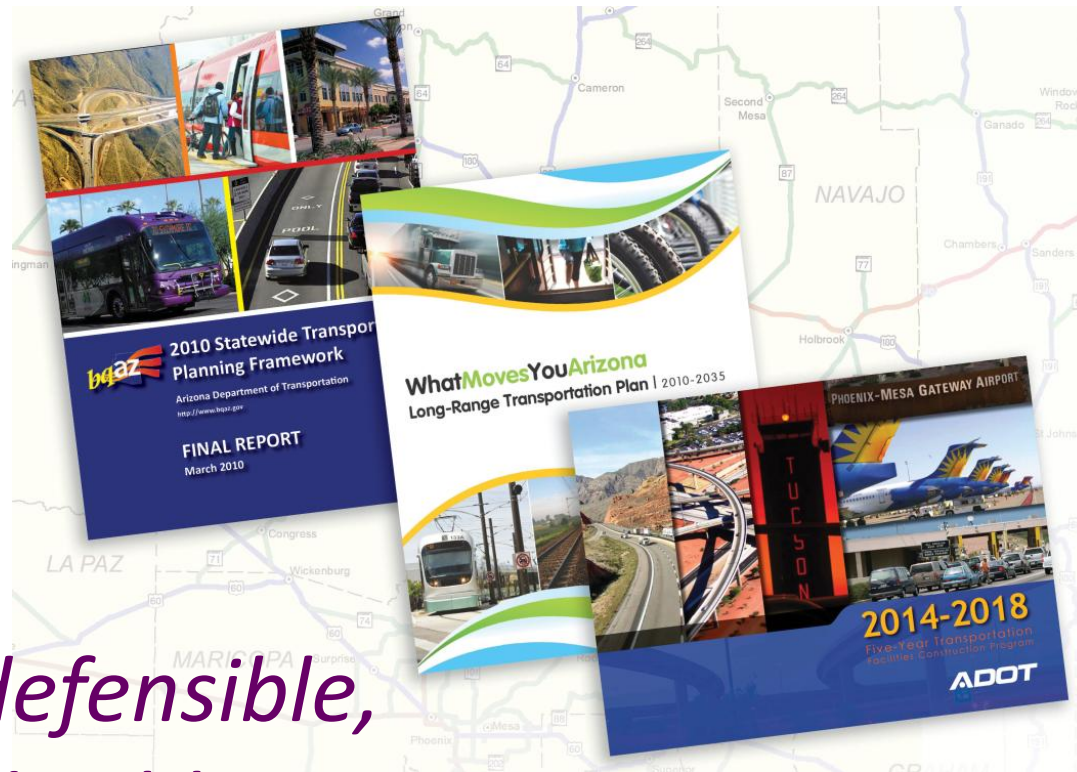


P2P Link Goal

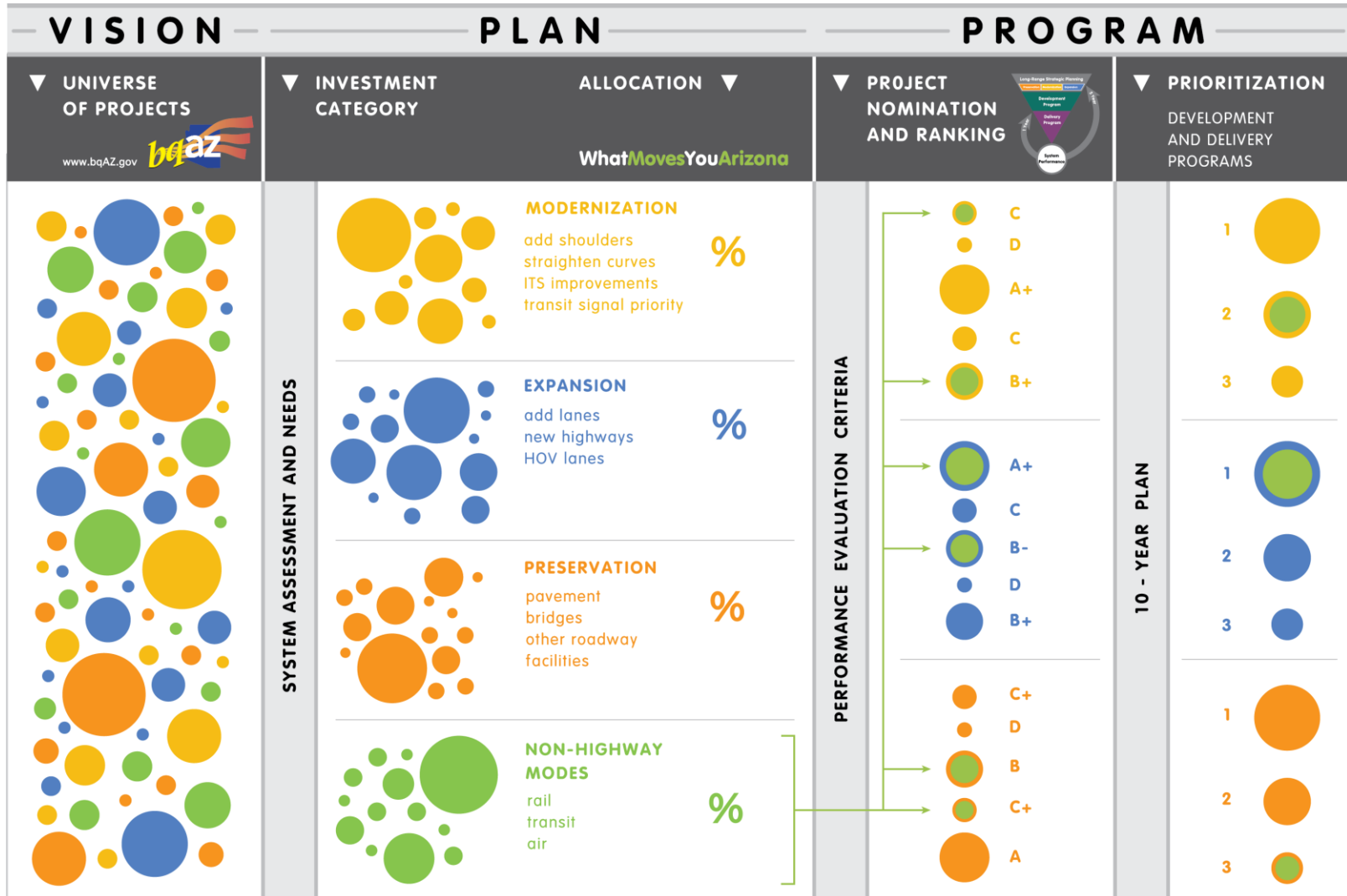


To create a performance-based process that links planning to programming

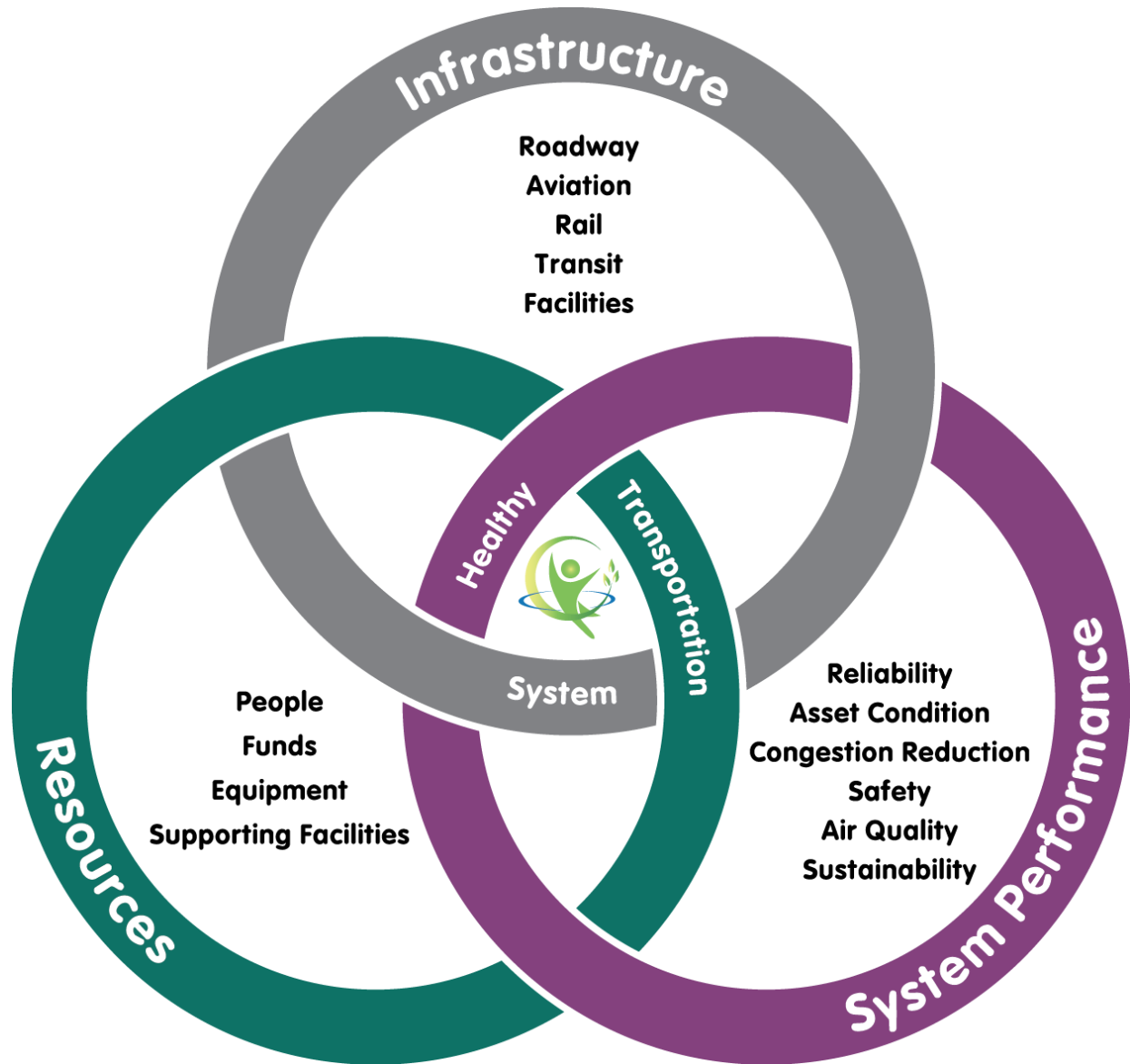
*transparent, defensible,
logical, reproducible*



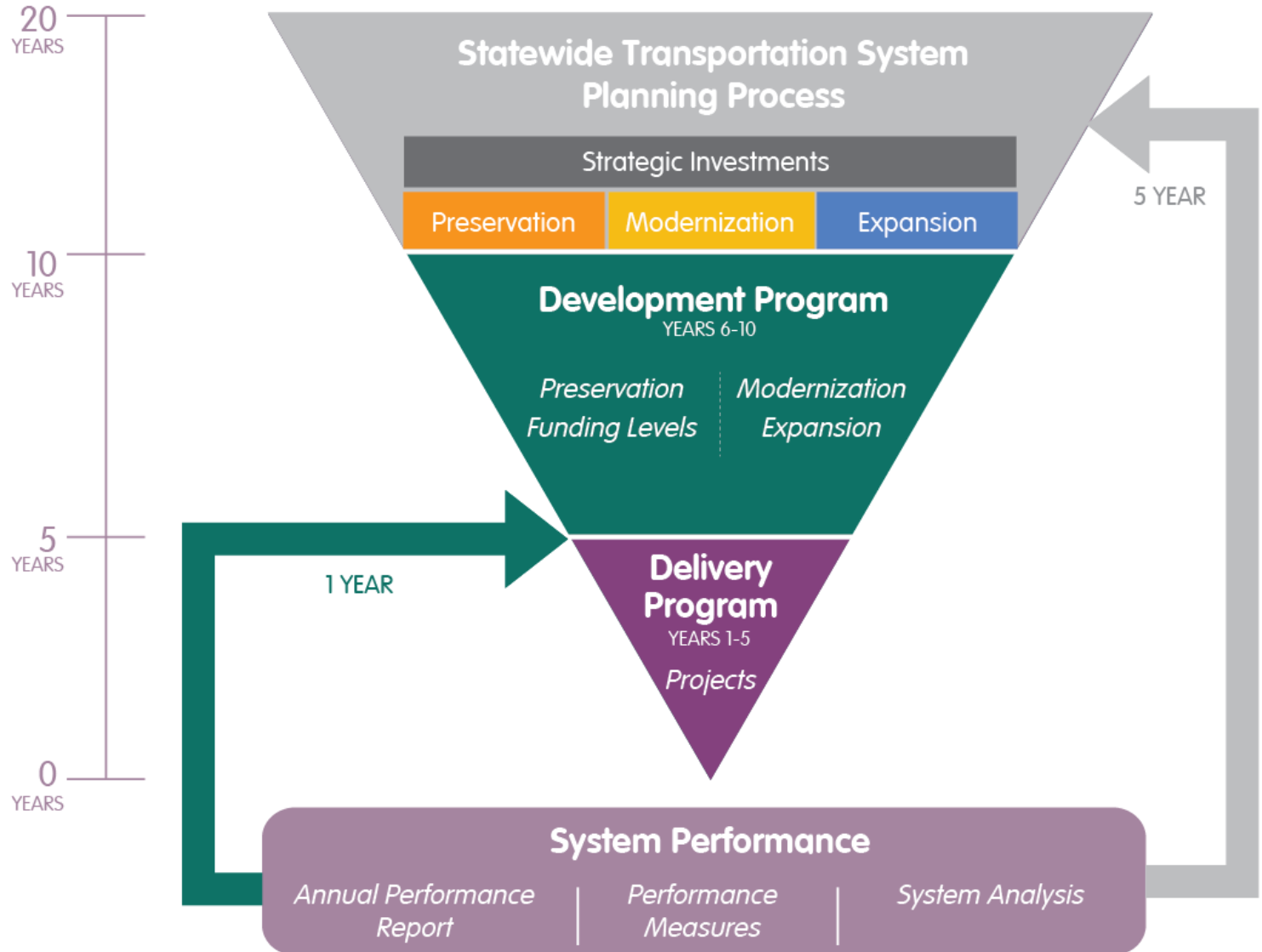
A New Way of Doing Business



A Healthy Transportation System



Linking Planning to Programming



What's Different



Reporting System Performance



Intranet Web-based Reporting

Focus is on State System

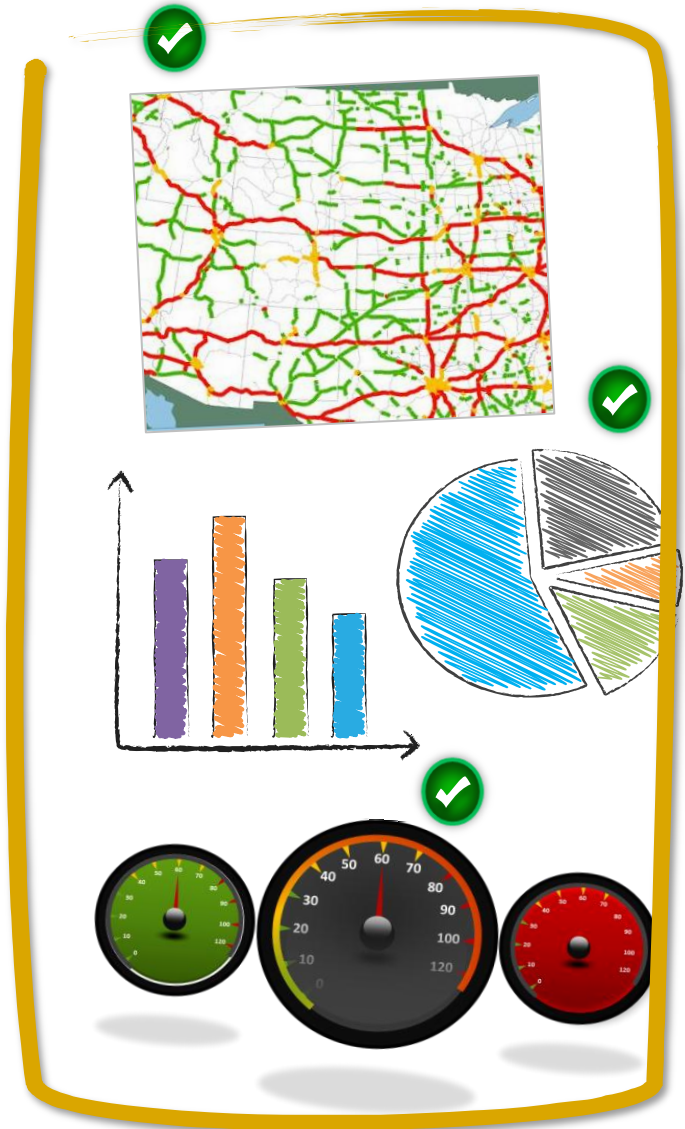
Display System Performance at **Statewide** and **District** levels

Maps + Charts + Dashboard graphics + Text

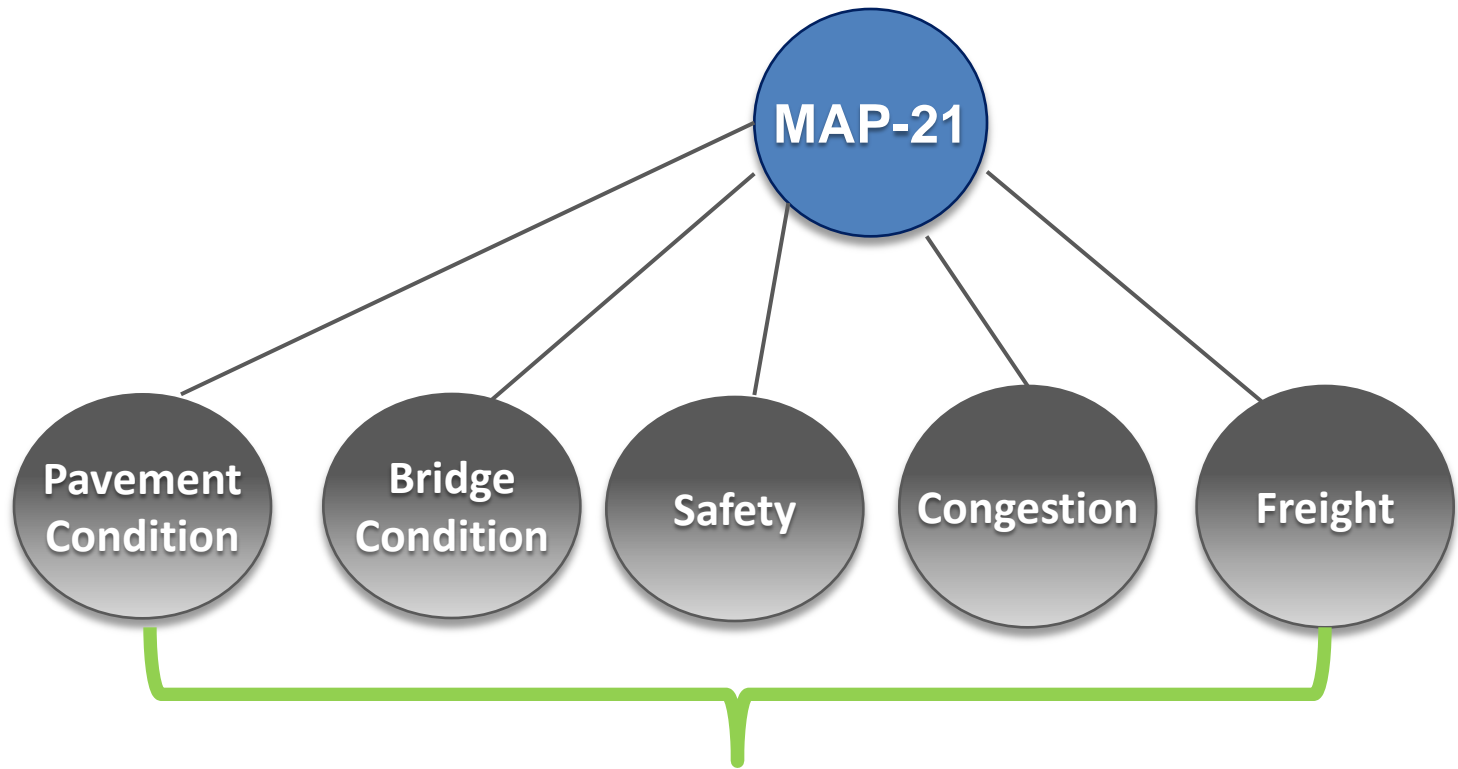
Interactive Map for zooming in and layered information

PDF maps for quick reference, printing and presentations

Future reporting will use a Data Analytics system that enables interactive real time ad hoc reporting



MAP-21 Performance Goal Areas

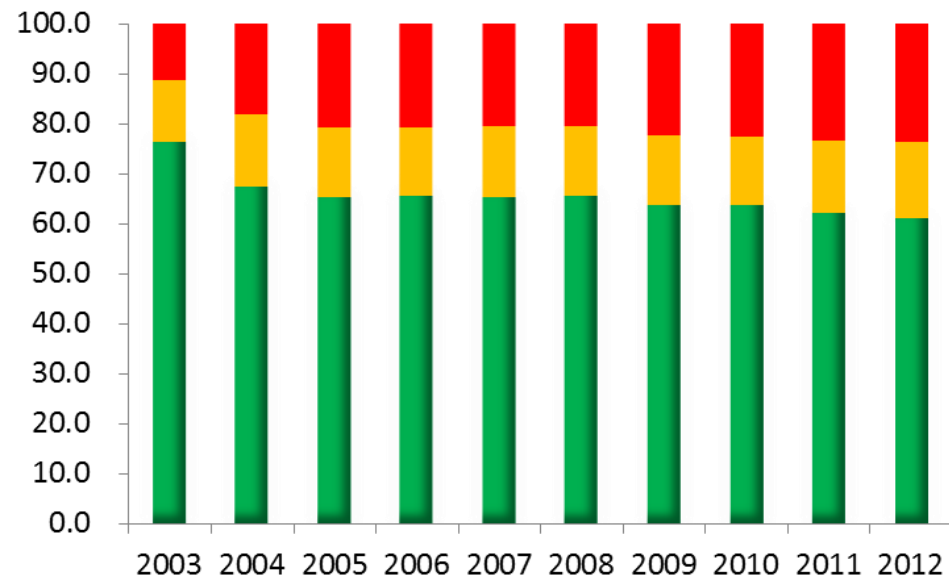


Focus of Initial System Performance
Reporting Effort

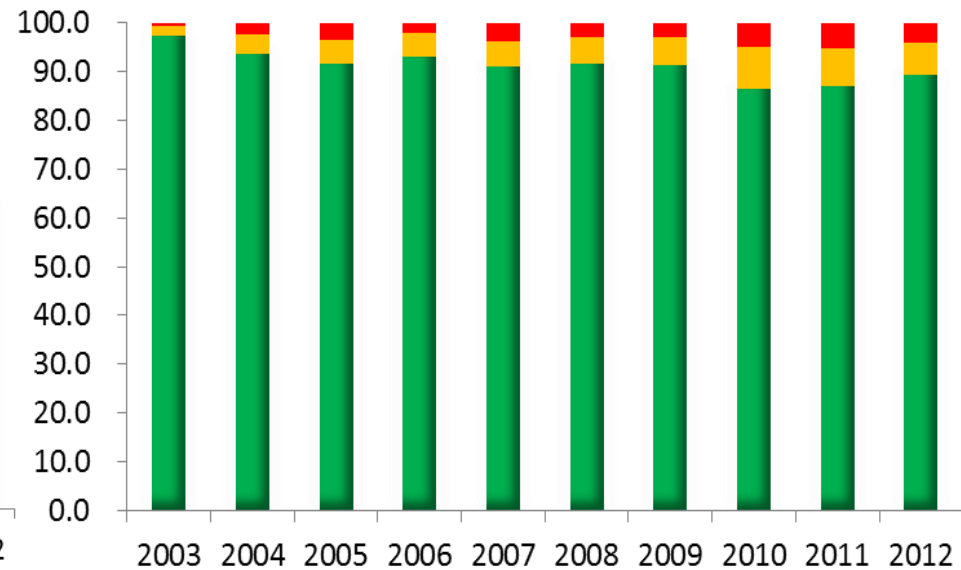
Pavement Condition - Statewide



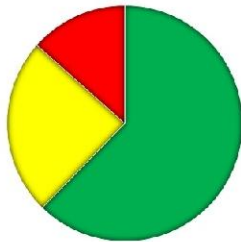
ADOT Non-Interstate Pavement Condition



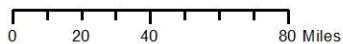
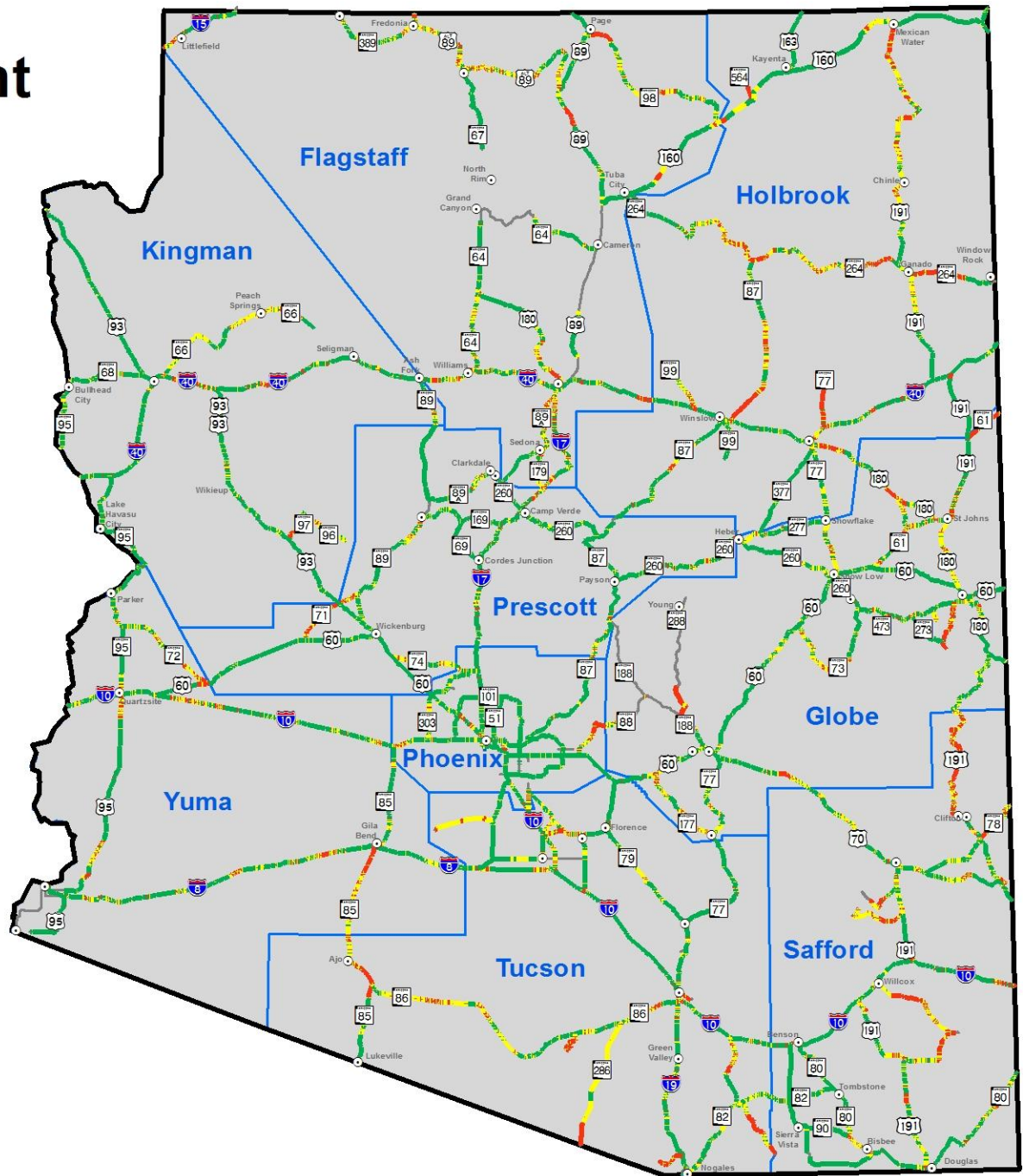
ADOT Interstate Pavement Condition



Statewide Pavement Condition 2012



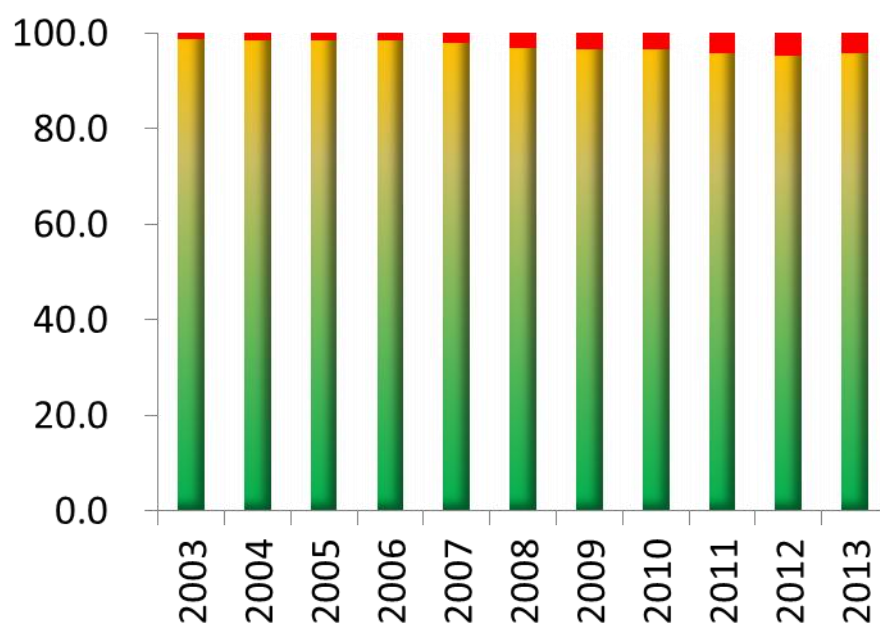
Condition	Miles	Percentage
Good	3617	62%
Fair	1410	24%
Poor	778	13%
Total:	5805	



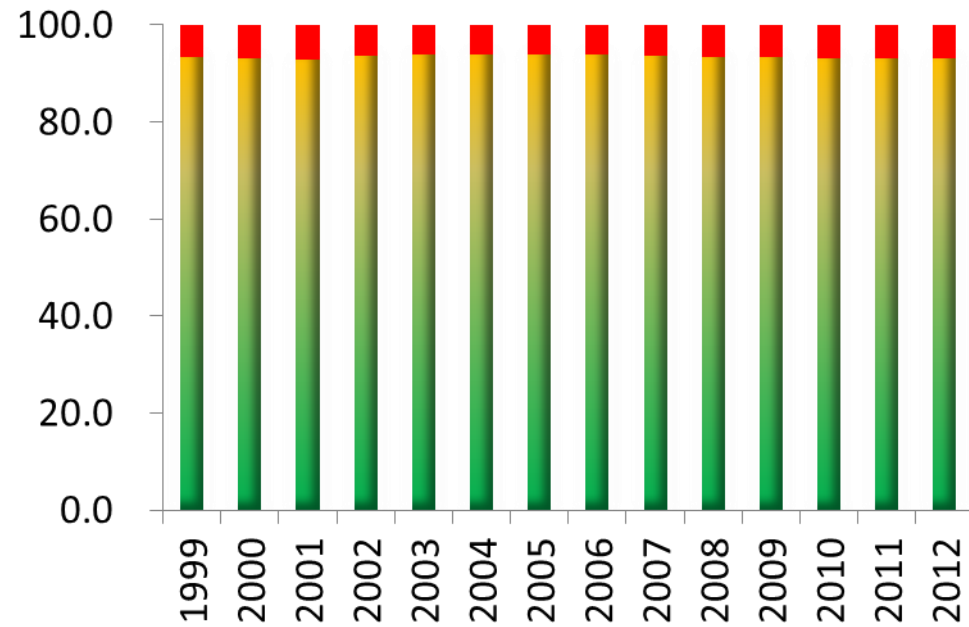
Bridge Condition - Statewide



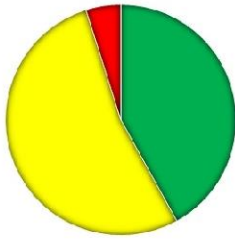
Bridge Condition – % SD (Deck Area)



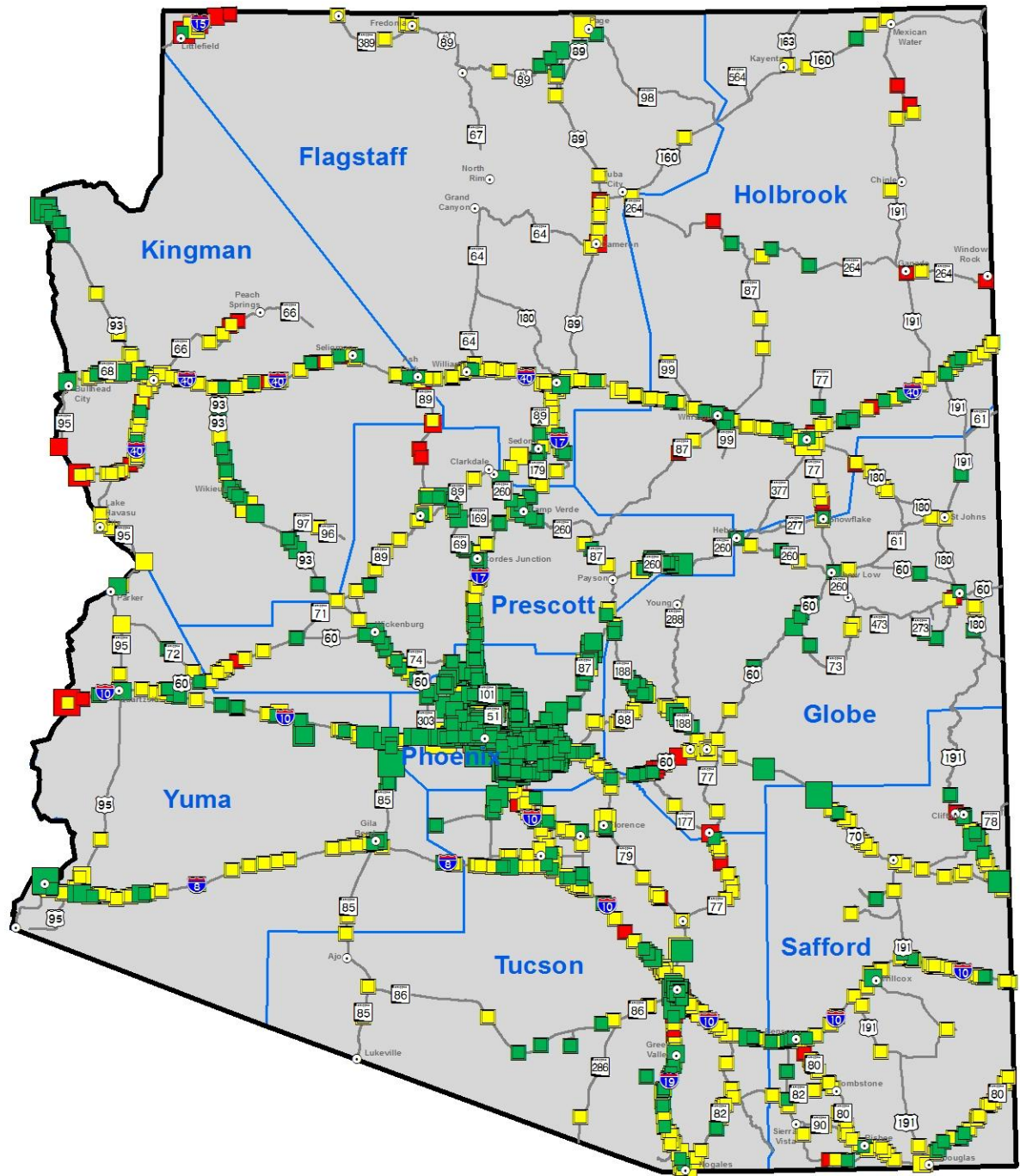
Bridge Condition Index



Statewide Bridge Condition 2013

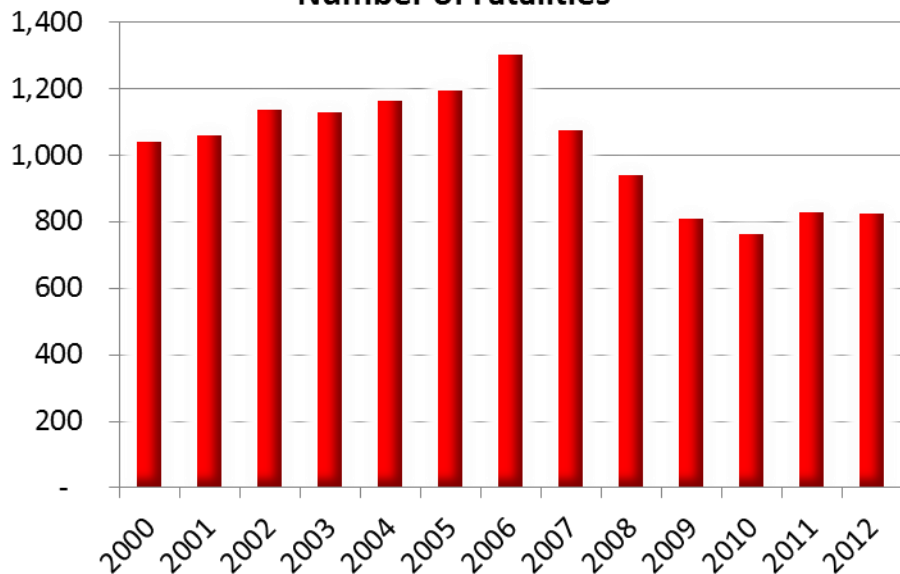


Condition	Count	Percentage
Good	910	42%
Fair	1153	53%
Poor	106	5%
Total:	2169	

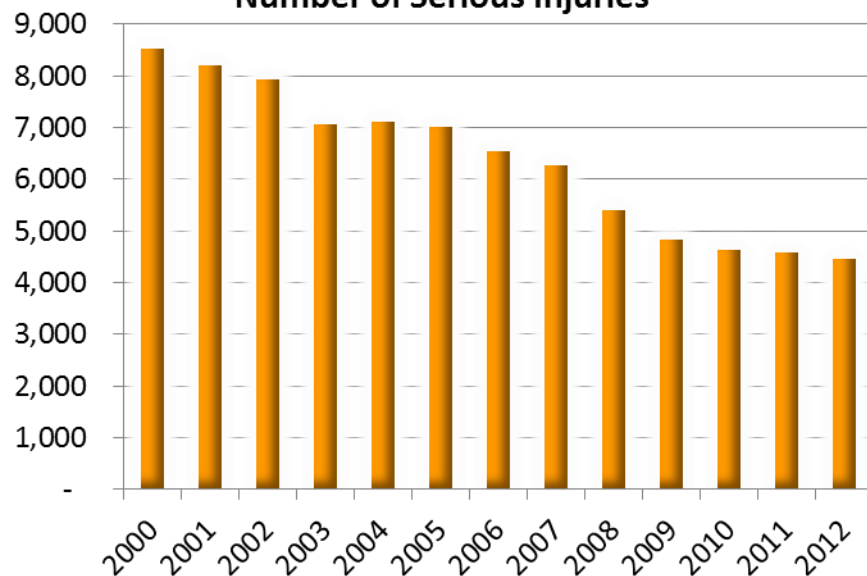


Safety

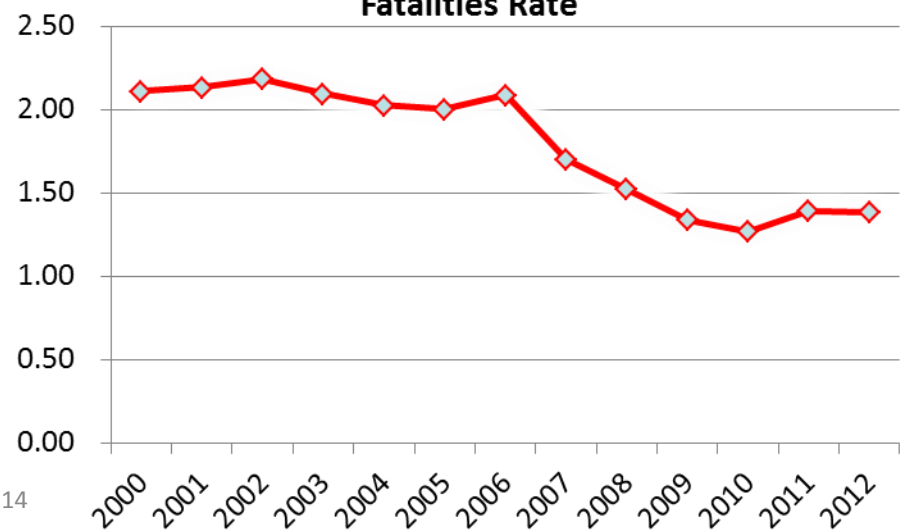
Number of Fatalities



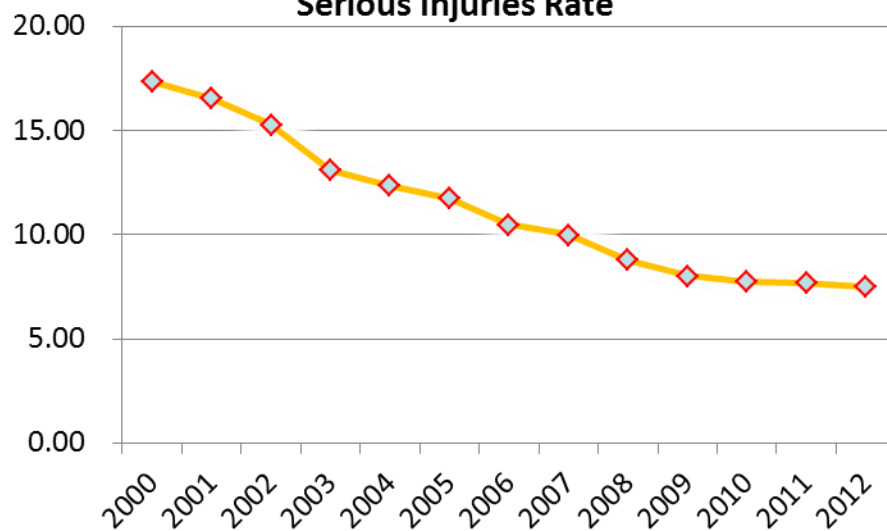
Number of Serious Injuries



Fatalities Rate



Serious Injuries Rate



Congestion / Freight



- **Annual Hours of Delay (AHD)**—Travel time above a congestion threshold (defined by State DOTs and MPOs) in units of vehicle -hours of delay on Interstate and NHS corridors
- **Reliability Index (RI80)**—
The Reliability Index is defined as the ratio of the 80th percentile travel time to the agency-determined threshold travel time



System Performance Dashboard



- Allows for an **aggregated representation** of system health
- Provides multiple **high-level indicators** in one location
- Targets an audience interested in system performance **at-a-glance**



Program Investment Categories



STRATEGIC INVESTMENTS

Strategic Investments are identified and included in the Long Range Transportation Plan, usually every 5 years. These are large-scale usually corridor level improvements that are of statewide significance and will address major risks to the accomplishment of plan policy goals and performance objectives.

LONG-RANGE TRANSPORTATION PLAN

PRESERVATION

Activities that preserve transportation infrastructure by sustaining asset condition or extending asset service life.

MODERNIZATION

Highway improvements that upgrade efficiency, functionality, and safety without adding capacity.

EXPANSION

Improvements that add transportation capacity through the addition of new facilities and or services.

PAVEMENT

BRIDGE

OTHER ROADWAY

FACILITIES

NON-HIGHWAY

ROADWAY

BRIDGE

FACILITIES

OPERATIONS

NON-HIGHWAY

MINOR PROJECTS

ROADWAY

FACILITIES

NON-HIGHWAY

Delivery Program (1-5 yrs)

Development Program (6-10 yrs)
Delivery Program (1-5 yrs)

Development Program (6-10 yrs)
Delivery Program (1-5 yrs)

Preservation: Bridge



Policy Goals	Manage assets to reduce life cycle costs, set and manage preservation targets and ensure safe, reliable operation of the transportation system
How Projects Accomplish Goals	<ul style="list-style-type: none">• Improve reliability of the system by mitigating unexpected closures or failures• Maximize the service life of the facility by following technically defined preventive maintenance treatments• Manage the asset by pursuing lowest lifecycle cost strategies
Eligible Work Types	<ul style="list-style-type: none">• Inspection-Triggered Bridge Repair• Preservation/Minor Rehabilitation• Major Rehabilitation/Reconstruction

Preservation: Pavement



Policy Goals	Manage assets to reduce life cycle costs, set and manage preservation targets and ensure safe, reliable operation of the transportation system
How Projects Accomplish Goals	<ul style="list-style-type: none">• Improve reliability of the system by mitigating unexpected closures or failures• Maximize the service life of the facility by following technically defined preventive maintenance treatments• Provide consistent ride quality to users
Eligible Work Types	<ul style="list-style-type: none">• Preservation Treatments• Rehabilitation• Reconstruction

Modernization



Policy Goals	Improve safety and reliability, reduce congestion, improve economic vitality, increase multimodal usage
How Projects Accomplish Goals	<ul style="list-style-type: none">• Improve productivity of the existing system• Reduce safety risk• Reduce travel time
Illustrative Eligible Work Types	<ul style="list-style-type: none">• Widening existing lanes/shoulders• Intersection and interchange reconfiguration• Enhancements to address functional obsolescence• Traffic control and management• Safety modifications/enhancements• ITS modifications/enhancements• Bicycle lane improvement

Expansion

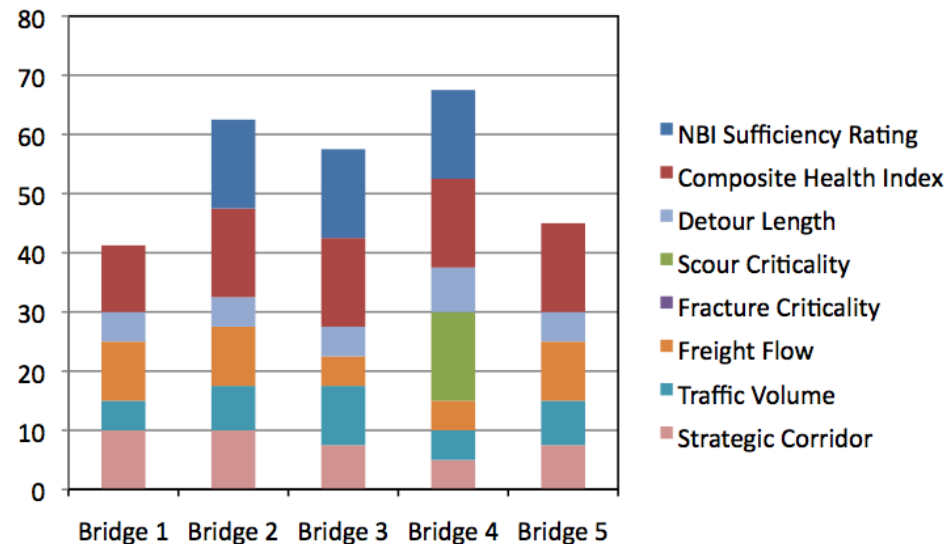


Policy Goals	Provision of transportation system capacity to provide mobility and support economic productivity
How Projects Accomplish Goals	Provide capacity to meet current and future travel demand at acceptable levels of service
Illustrative Eligible Work Types	<ul style="list-style-type: none">• New routes• New lanes• New rail• New Interchanges/Intersections• Interchange/Intersection Capacity Enhancement

Evaluation Criteria



- Relate planned **system performance to project ranking**
- Consistent with **MAP-21** performance measurements
- Consider the **best set of performance indicators** to prioritize projects within each investment category
- Utilize the **fewest criteria** to yield meaningful results in ranking projects
- **Minimize overlapping criteria** that result in unintentional weighting



Evaluation Criteria



PRESERVATION

Bridge
Sufficiency Ratings
Condition Ratings
Detour Length
Scour Criticality
Fracture Criticality

Pavement
Ride Quality
Structural Integrity

MODERNIZATION

Delay Reduction

Traffic Flow
Improvement

Total Crashes

Expected Crash
Reduction

EXPANSION

Travel Time Savings

Future Traffic
Volume

Future Freight Flow

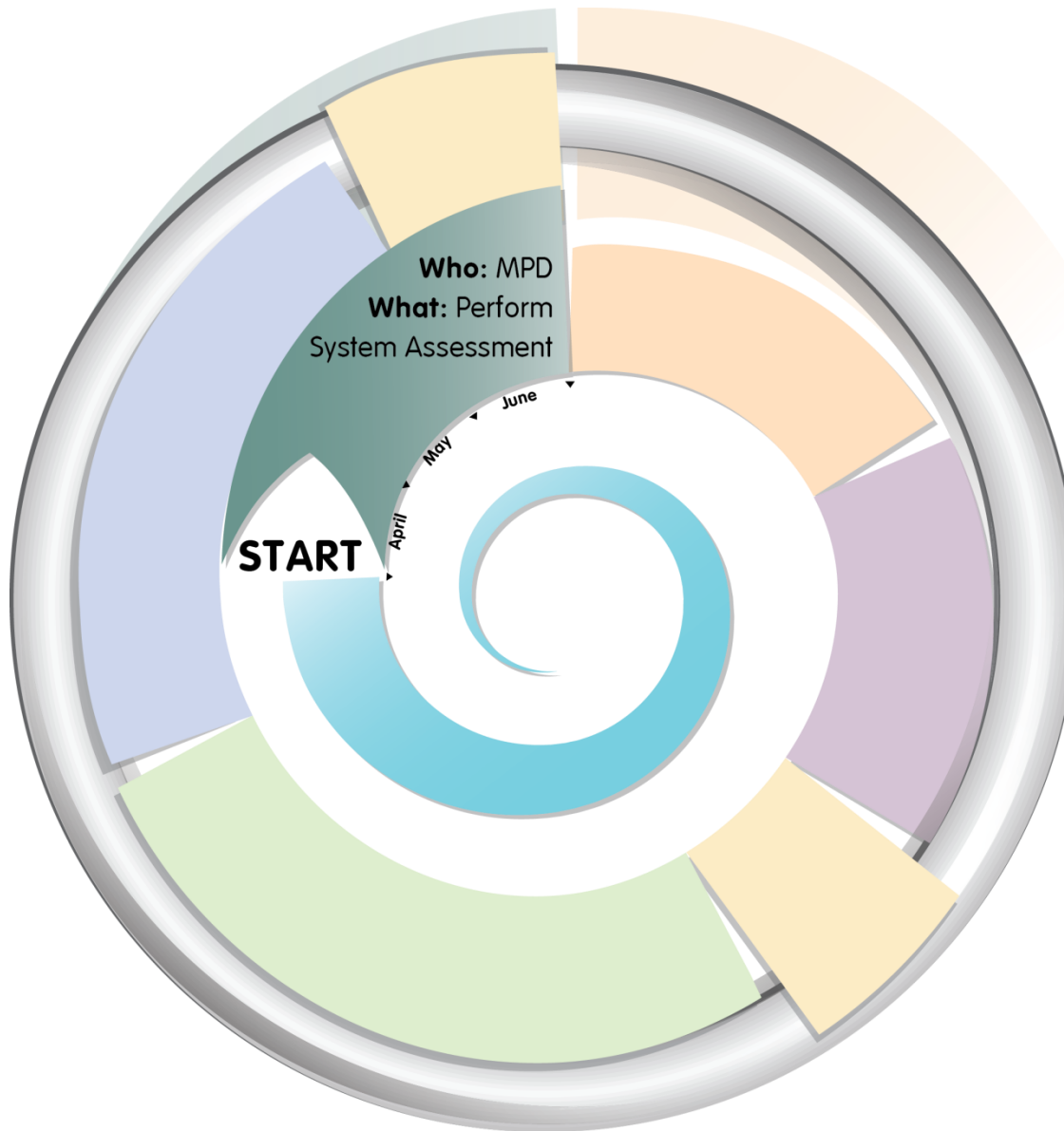
SYSTEM PLANNING CRITERIA

Freight Flow
Strategic Corridor
Cost Effectiveness

Multimodal Enhancement
Supports Statewide Plans
Local Input

Annual Program Update

April - June



April - June

Who: MPD

What: Perform System Assessment

July - August

Who: System Review Teams
(Districts, MPOs, COGs and
ADOT Technical Groups)

What: Review System Assessment

September - October

Who: Districts, MPOs, COGs, and
ADOT Technical Group

What: Project Nominations

November

Who: Investment Category Teams

What: Project Ranking

December - February

Who: ADOT Leadership
(MPD, ITD, FMS, ECD)

What: Risk-Based Scenarios Review
and Project Selection for
10-Yr Program

March - May

Who: PPAC

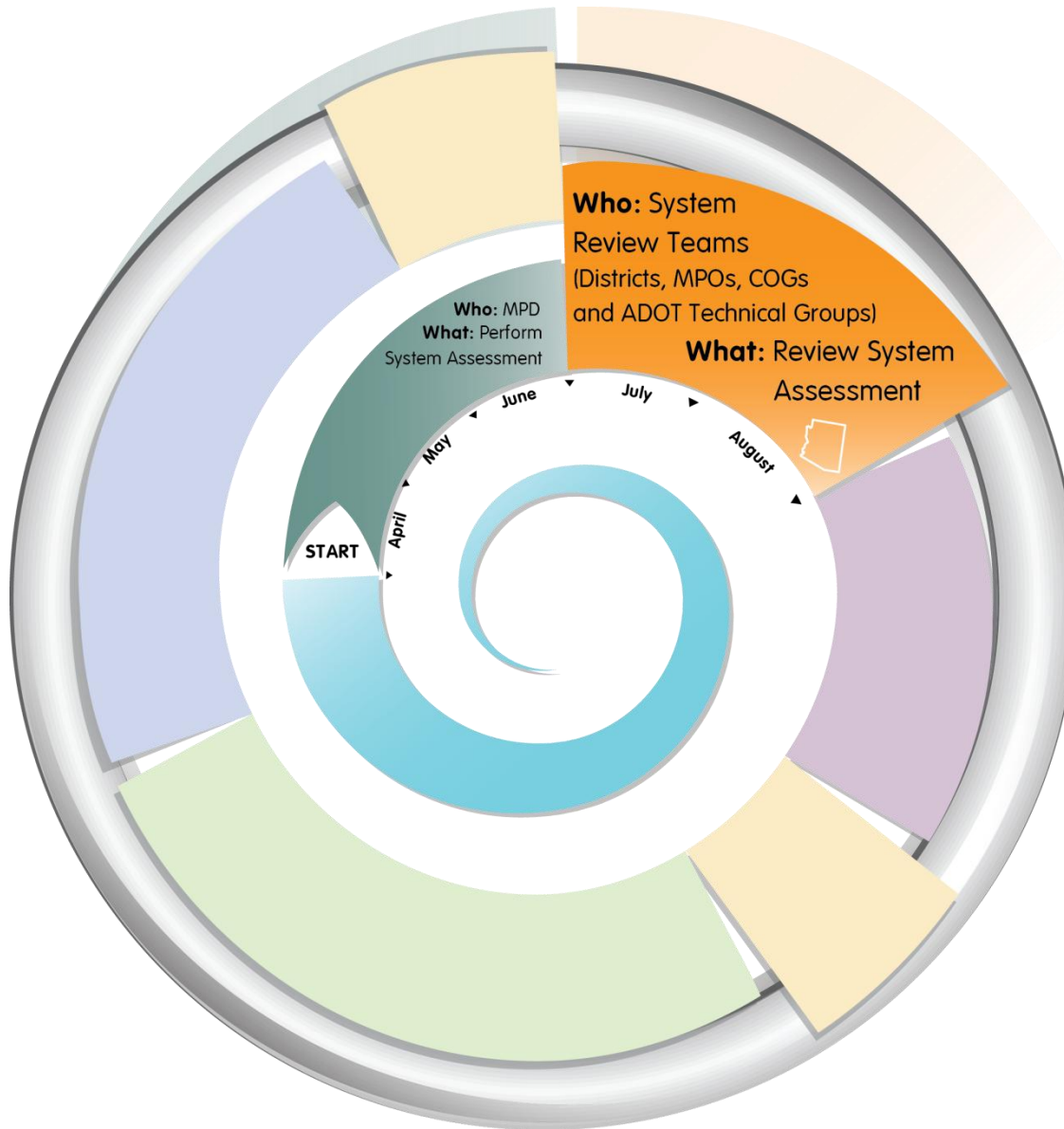
What: Share Tentative 10-Yr Program
and Obtain Feedback

June

Who: State Transportation Board

What: Approval

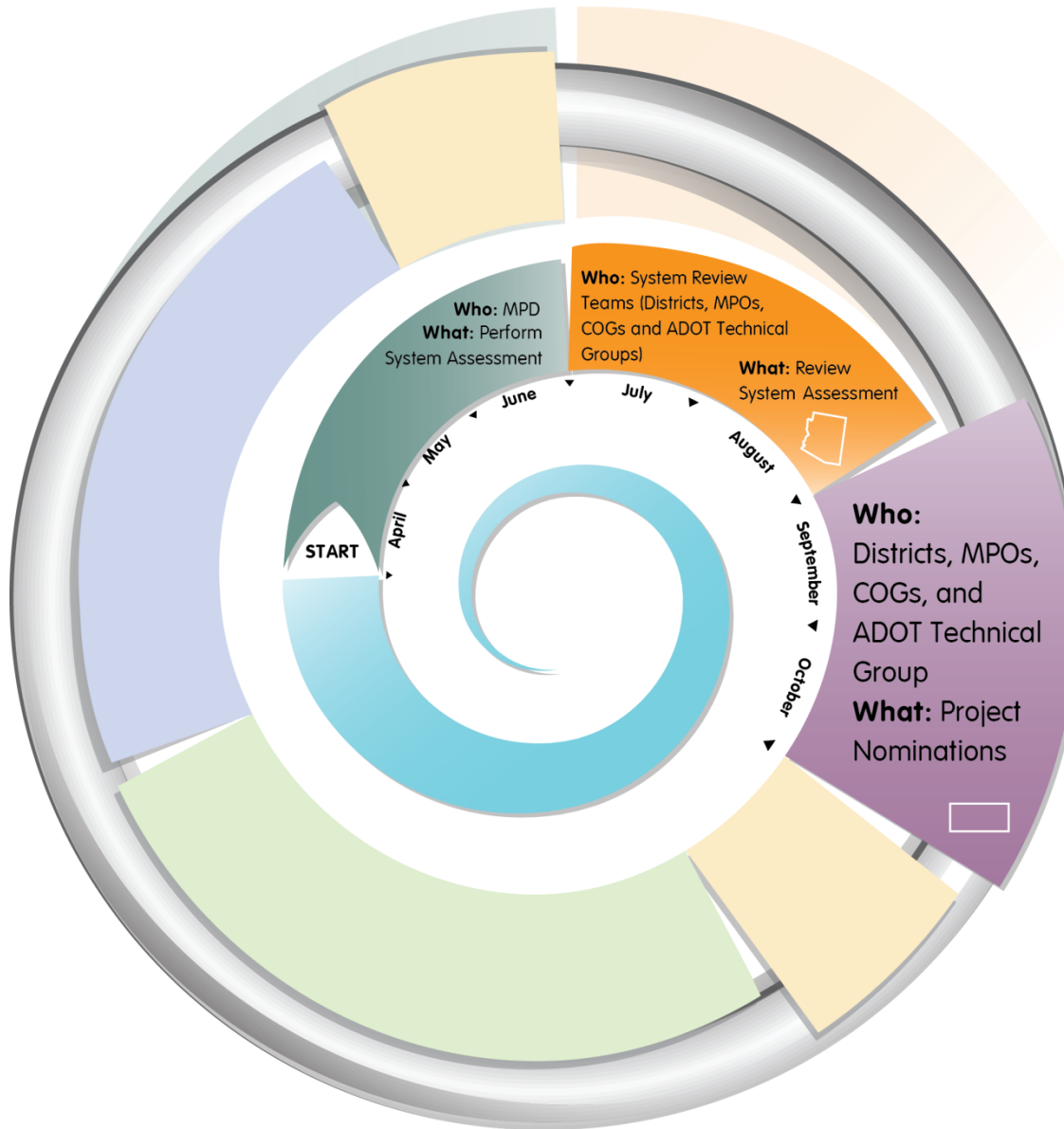
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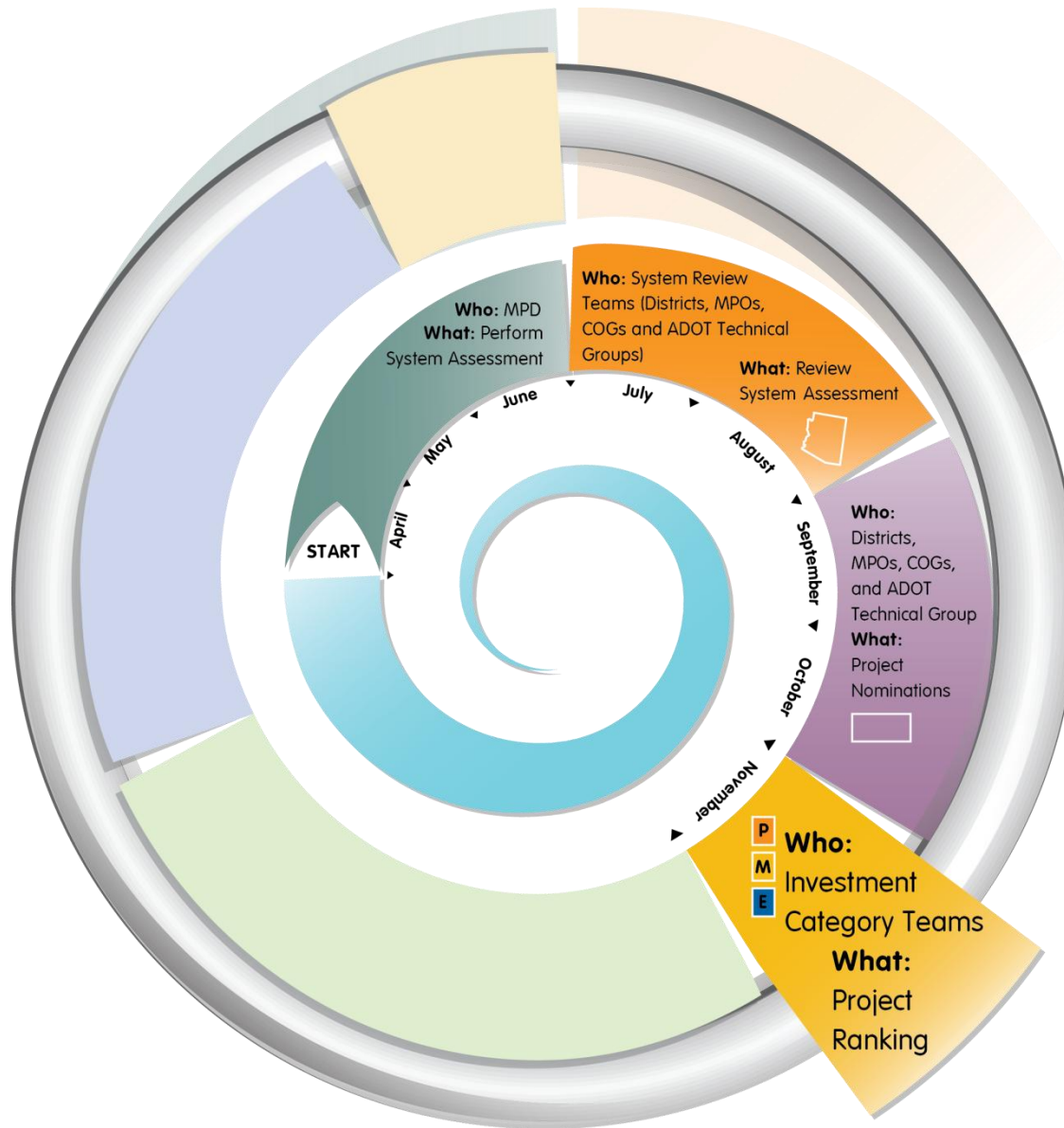
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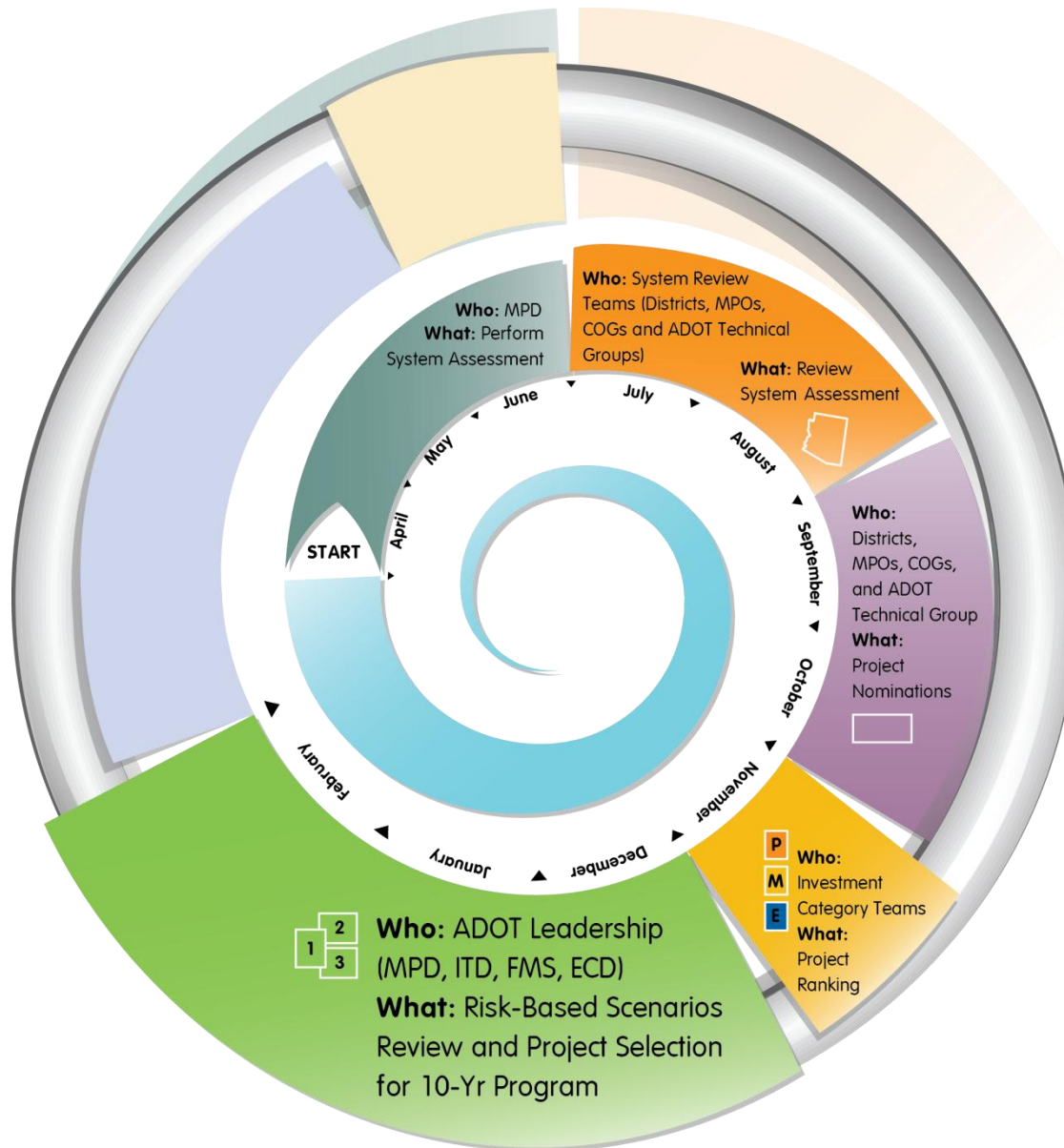
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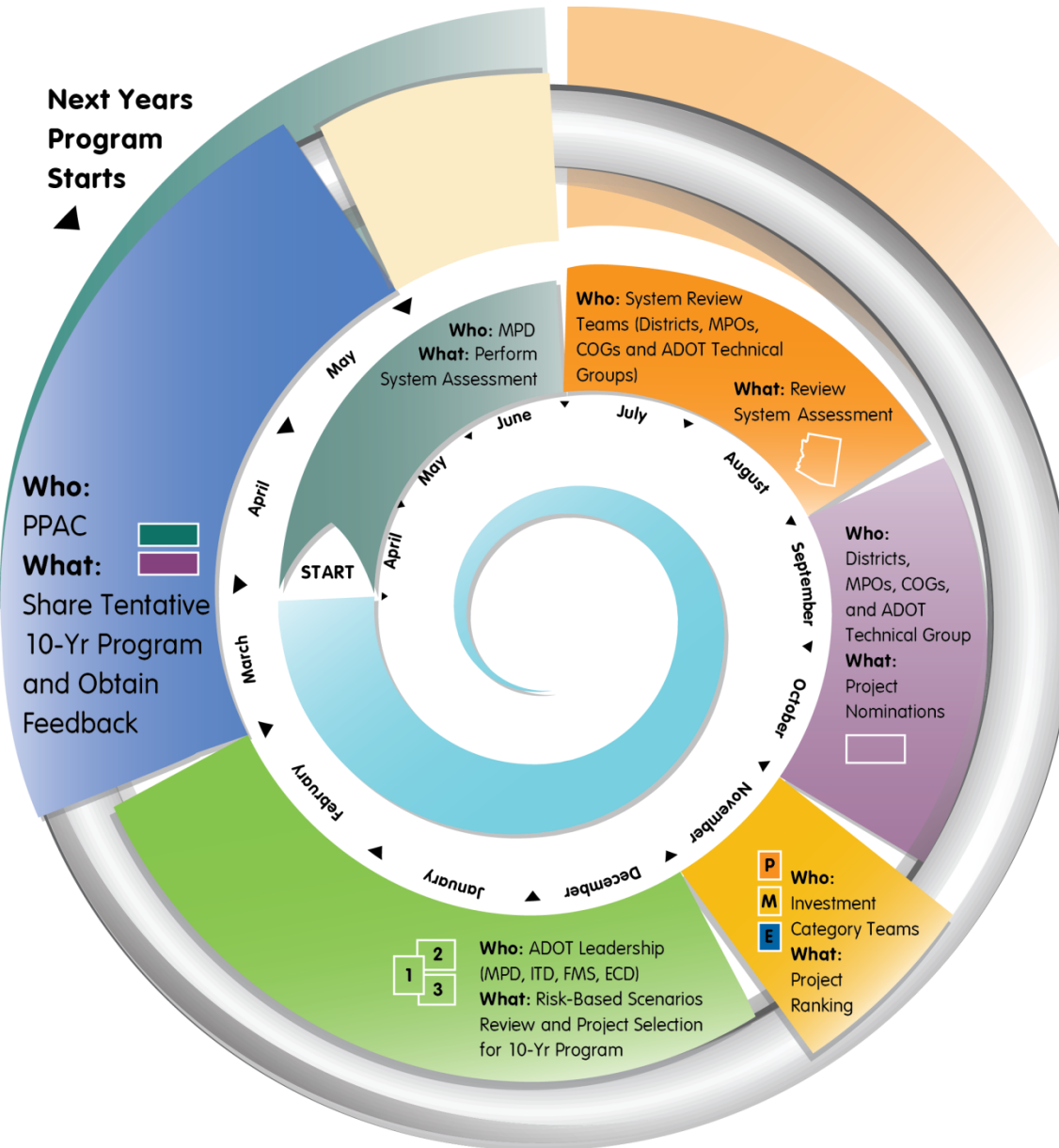
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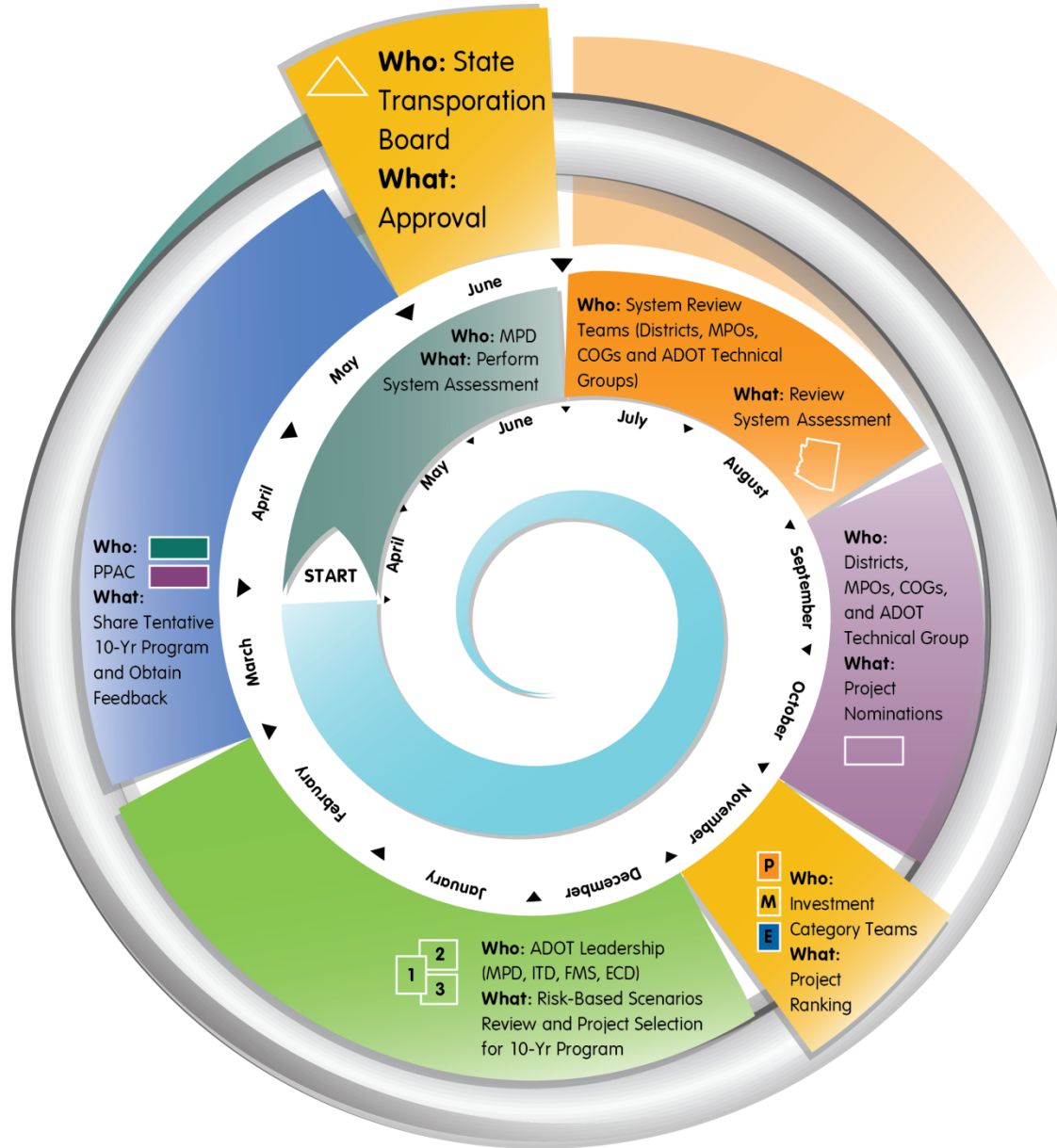
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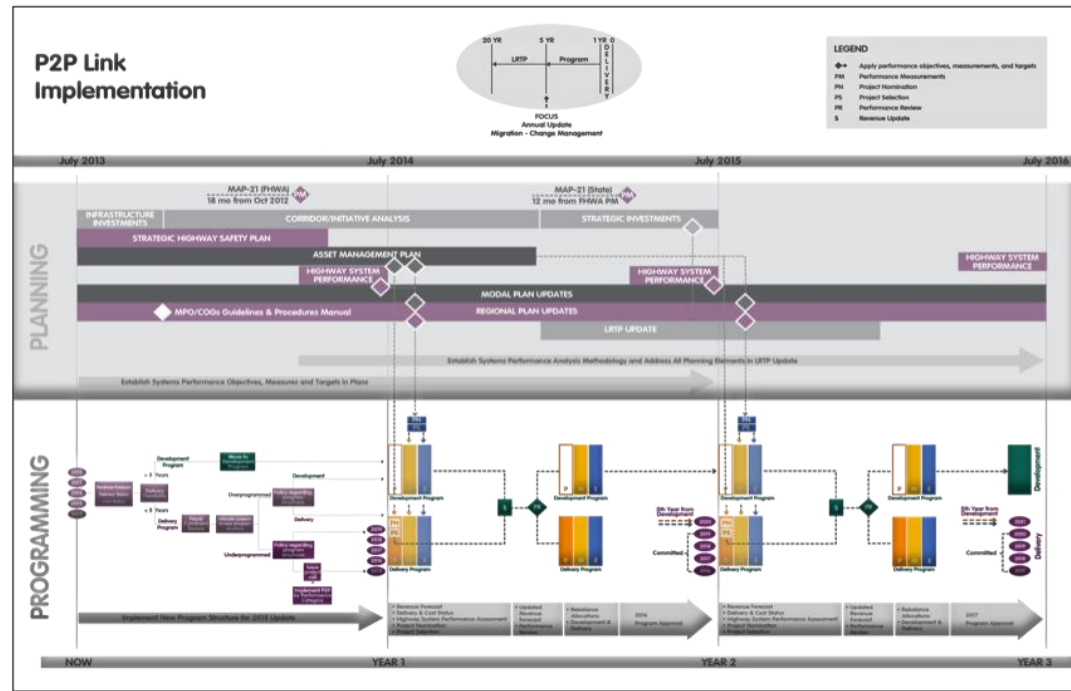
Who: State Transportation Board

What: Approval

Implementation Considerations



- 3-year Implementation Strategy Plan
- MAP-21 Performance Measurements
- New Planning Required: Strategic Highway Safety Plan, Asset Management Plan, System Performance Analysis
- Planning Updates Required: LRTP, Modal Plans, Regional Plans, etc.



3-Year Strategy Plan



Year 1 : Initiate Planning Efforts and the 10-Year Program

- Define scope and timeline for Asset Management Plan, System Performance Analysis and LRTP Update
- Implement new 10-Year Program structure
- Define methodology of System Performance Analysis

Year 2 : Implement System Performance Program

- Evaluate the current program balance among the investment categories pending plan updates
- Prepare the System Performance Analysis Report

Year 3 : Update the LRTP

- Refine overall methodology for System Performance Analysis and address the identified needs in the LRTP update
- Identify Strategic Investments in the LRTP update

Anticipated Benefits



- **Transparent, defensible, logical, reproducible** process for programming improvements
- Truly **linking planning to programming** to use funds more effectively
- System **performance will drive investment** decision making
- **Simplified program structure**
- Implementation of a **risk-based approach**
- Assist with implementation of **MAP-21**

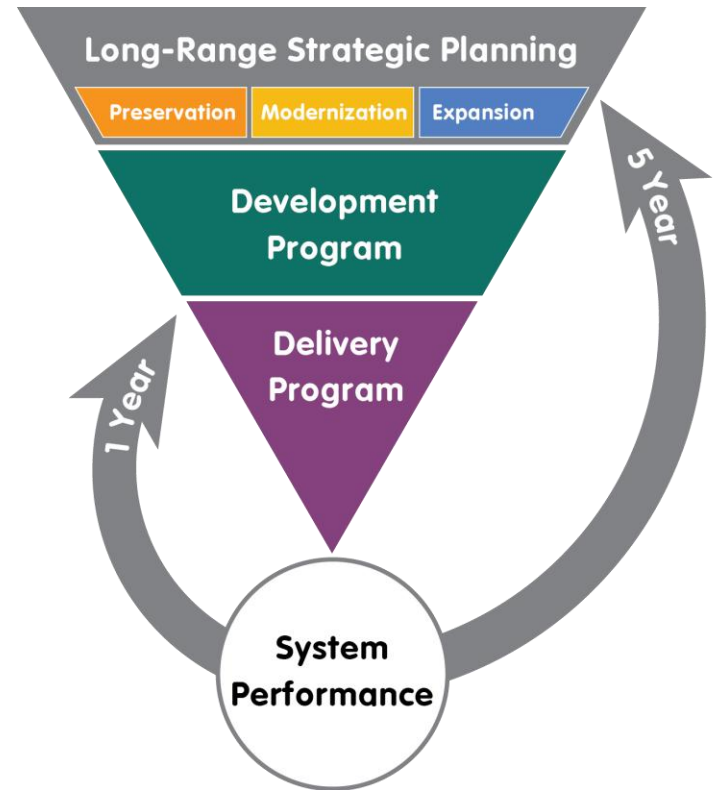


P2P Link will change business practices at ADOT

ADOT P2P Link



Questions?



Thank you!